

*asarifolia* reported from Venezuela, Colombia, Bolivia, Paraguay, and Argentina, while *L. repens* is apparently restricted to southeastern Brazil. Bitter distinguished the more variable *L. asarifolia* from *L. repens* on the basis of its usually longer petioles, as well as larger calyces, anthers, and fruits, among other features of indument and flower color (corollas reported as pale blue to violet in *L. repens*).

Our plants clearly fall within Bitter's concept of *L. asarifolia*, and we have compared collections from Venezuela (*Alston* 6105, USF), Colombia (*Sneidern* 3121*b*, GH), Bolivia (*Steinbach* 6212, GH; *Rusby* 1875, GH; *Solomon* 13467, NY; *Nee* 35104, NY), and Brazil (*Dusen* 11315, GH). Under cultivation, our plants show considerable variability in pubescence as well as leaf blade shape and dimensions. Should the two species be united, the name *Lycianthes repens* (Sprengel) Bitter, based on *Boldoa repens* Sprengel [Syst. Veg. 1: 179. 1824] would have priority. An excellent illustration of *L. repens* (as *Solanum violaeifolium* Schott) can be found in Martius, Fl. Brasil. 10:52, tab. 4, fig. 44–46; tab. 12. 1846. A note with *Nee* 35104 states that the orange, rather pleasant-tasting fruits of "motojobo" are edible and made into preserves.

We thank Dr. M. Nee (NY) for invaluable assistance with the identification and nomenclature of this species, and Dr. M. Molvray (NO) for help with Bitter's German. The curators of GH, MO, NY, SMU, US, and USF searched their collections for North American records of *Lycianthes asarifolia*, or made other material available for our examination. — *Steven P. Darwin and Toby Feibelman, Dept. of Ecology, Evolution, and Organismal Biology, Tulane University, New Orleans, LA 70118, U.S.A.*

*PALIURUS SPINA-CHRISTI* (RHAMNACEAE) NEW FOR NORTH AMERICA IN TEXAS — *Paliurus spina-christi* Miller, an Eurasian rhamnaceous shrub not previously reported as naturalized in North America, has been found growing on the Edwards Plateau of central Texas. The plant is known only from Gillespie County where it was apparently introduced ca. 100 years ago. It is well established along the flood plains of two creeks and the Pedernales River and has become a pernicious weed.

In 1986, a rancher brought to the attention of Gillespie County agricultural extension agent Duery Menzies the presence of an unusual spiny shrub that was invading his pastureland along Dittmar Creek 21 km west of Fredricksburg in Gillespie County. The plant was taken to Texas A&M University in College Station by Roger Landers, Range Specialist, Texas

Agricultural Extension Service, where it was identified by Kancheepuram N. Ghandi as *Paliurus spina-christi*, known in the vernacular as Christ-thorn. Another specimen was taken to the University of Texas in Austin where Marshall Johnston also identified it as *P. spina-christi*. Ghandi (pers. comm.) stated that there has been a *Paliurus* on the TAMU campus at College Station for many years but that it has not produced other plants. Johnston (1969 and pers. comm.) who has authored publications on Rhamnaceae and traveled internationally to study the family, notes that *Paliurus* is not known in the wild as an escape in Texas or the United States. Kartesz & Kartesz (1980) does not list this taxon from the United States or Canada. James B. Phipps (pers. comm., Western Ontario Univ.) says that this plant has not been found in Canada. In addition a check of the MEXU herbarium revealed no specimens from Mexico and Rogers McVaugh (pers. comm. Univ. North Carolina, Chapel Hill) note its absence and any published report in Mexico. This plant would thus appear to be the first report of *P. spina-christi* for all of North America. Collection data are:

Collections examined: TEXAS. Gillespie Co.: Dittmar Creek, 5.5 km N Hwy 290, 4 May 1988, O'Kennon 2766 (BRIT/SMU); Dittmar Creek at Hwy 290, 4 May 1988, O'Kennon 2767 (BRIT/SMU); Spring Creek, 200 m S of Tivydale Rd, 17 Aug 1988, O'Kennon 3117 (BRIT/SMU); Pedernales River, Boos Rd, 6.5 km S of Fredricksburg, 22 Aug 1990, O'Kennon 7613 (BRIT/SMU).

*Paliurus spina-christi* is a deciduous multi-trunked shrub 3–4(–5) m high. The stems are spreading and armed with curved spiny stipular thorns to 1 cm. The leaves are alternate and distichous or in two ranks, short petiolate, ovate, crenate-serrate, and 2–4 cm long. The bright yellow flowers are small but numerous in axillary cymes or terminal panicles and are striking in appearance when in full bloom. The greenish yellow fruits are flat disc-like capsules 2–3 cm in diameter. The dried capsules often remain on the plant until the following year's flowers are blooming on new growth. This *Paliurus* is one of the legendary trees from which the Crown of Thorns was supposedly made. It has been in cultivation in Europe for over 300 years, and is sometimes cultivated in the United States (Everett 1981).

Since the first discovery of *Paliurus*, an investigation has revealed the source of the plant's introduction and the extent of its range. In the late 1800's a German homesteader planted seeds brought from Europe in order to form a spiny hedgerow along the west bank of upper Dittmar Creek 9 km north of highway 290 and 19 km west of Fredricksburg. Longtime residents of this area remember the 100 meter long hedge as having always been there. One 93 year old man who has lived on the site most of his life

remembers not only the hedge but other younger thorny plants growing a short distance downstream. He states that as time passed more shrubs appeared downstream beyond sight of his ranch. Now, approximately 100 years after the plant's introduction, the Christ-thorn has proliferated extensively along Dittmar Creek 9 km south to highway 290 and well beyond. Dittmar Creek feeds into Spring Creek which flows south 11 km more before emptying into the Pedernales River south of Morris Ranch. *Paliurus* is found in large thicket-forming populations along the entire length of these creeks and is widely scattered along the Pedernales for 13 more km until just south of Fredricksburg. In time it will undoubtedly be found farther east, perhaps into Blanco County and beyond.

The capsules and their seeds appear to be carried solely by water and sprout primarily in the wide rich flood plains along the waterways. Occasional plants are found on flats just above the traditional flood plain. This can be explained by the changes in water level during torrential rains and resultant flash flooding typical of the deeply cut terrain of the central Edwards Plateau. Prior to 1978 the plants apparently remained in a restricted range from their point of introduction along upper Dittmar Creek to just north of Hwy 290 and had not yet become conspicuous pests. A 1978 flood which was associated with a stalled tropical depression, the remnants of hurricane Amelia, was most probably the force which generated the explosive proliferation of an entire generation of plants of similar size all along its present range and well outside the normal flood plain.

Because *Paliurus* heavily infests prime fertile grazing land and habitats of native wetland flora, it is now considered a pernicious weed with the potential for being as disastrous as other old world invaders such as *Lonicera japonica* Thunb. (Japanese honeysuckle), *Sapium sebiferum* (L.) Roxb. (Chinese tallow), and *Pueraria lobata* (Willd.) Ohwi. (kudzu). These plants are having devastating deleterious effects on many native plants as they take over more and more territory. Because of its rapid proliferation, a program to eradicate *Paliurus* has been initiated by the county under the direction of Mr. Menzies, and it is apparently effective.

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*EUPHORBIA LATHYRIS* (EUPHORBIACEAE) NEW FOR TEXAS — *Euphorbia lathyris* L., a European herbaceous euphorb not previously reported from Texas has been found naturalized on the Edwards Plateau of central Texas. The plant is known only from a single site in western Gillespie County.

*Euphorbia lathyris*, caper or myrtle spurge, a European euphorb has been found growing on the banks of the Threadgill Creek in western Gillespie County, Texas. This spurge is native to the Mediterranean region of southern Europe and according to Marshall C. Johnston (pers. comm.) has not been previously reported from Texas. It is not listed in the more recent Texas checklists by Johnston (1988, 1990) and Harch et al. (1990).

Caper spurge is widely cultivated in Europe and is occasionally cultivated in the United States. It is known to have escaped cultivation in the Atlantic Northeast and in California. It is also known as "mole plant" because of its believed properties that repel moles from lawns. The seeds have cathartic properties.

*Euphorbia lathyris* is distinct from other Texas euphorbs in its tall, somewhat conspicuous habit. It gets up to a meter tall with narrow leaves to 14 cm long arranged in four vertical rows along the stem. The inflorescence is umbellately branched with the floral bracts lanceolate to ovate. Its crescent-shaped glands are prolonged into short horns. The subglobose capsules are 1.0 - 1.2 cm wide.

The author previously observed non-flowering plants (vegetative) in Gillespie County, but were later eaten by animals and never positively identified. The plants are found on a cattle ranch inhabited by angora goats and white-tail deer, and it is likely that few of the plants ever reach maturity. The collection site is within a deer-proof fence enclosure established for the purposes of native plant research and affords protection from these animals. Plants were first identified in May, 1990 when in full flower. Marshall Johnston visited the site with the author at that time and collected a single specimen from a colony of six plants along the creek bank. In August the author collected a fruiting specimen. The fruiting specimen was taken to SMU where the author and Wm. E. Mahler determined it to be *E. lathyris* matching European collections in the herbarium.